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The city in quarantine. Perspectives of urban regeneration through the experimental model of the *macro-block*.

Abstract

The *lockdown* showed a city often unsuitable for emergency situations, such as that caused by the pandemic. Nevertheless, the population, confined within their homes, expressed the need for the urban experience and to live the open space. The emergency thus becomes an opportunity to rethink the city through a review of models. Within a line of research by the University of Parma on urban structure and density as factors of regeneration, settlement methods are being tested on the model of macroblock. A spatial prototype that, starting from the block, improves the quality of living by means of compositional operations in the dialogue between the built and the open space, in the context of new primary functions, proximity services and improvement of environmental sustainability standards. In these terms, the *macroblock* contributes to create a settlement structure where the continuity of the fabric is defined by completed autonomous parts that relate to each other according to different degrees of complementarity.

Keywords

Urban regeneration — Urban tissue — Macro block — Public space — Urban community

The health emergency caused by the spread of Coronavirus has proven to be a significant *crash test* for settlement facilities. This has caused, among other effects, the crisis of ordinary social, economic and cultural structures; it has highlighted important criticalities of the current urban model – that can be generalized for several contexts, whether they are of different dimensions or geographical conditions – produced by a short-minded development that for decades has neglected the physical conditions of environments that favor sociality, sharing of spaces, structures and services of collective nature. This phenomenon mainly went on until the crisis of the global markets in 2008, which did not give rise to counter trends, such as that of giving priority to the *care of the city* and the enhancement of the existing heritage. Those who were able to build continued to insist firmly on the capitalist urban model, operating and expanding a *body already sick*, conditioned by numerous criticalities until the crisis of the very concept of city.

Covid-19 struck suddenly, at the same speed and pressing pace that people were accustomed to organizing their everyday life. Without realizing it, a few days after the first outbreaks, all were affected by the consequences of the measures to combat the spread of the virus, some of the most severe in the world in the context of democratic states. The domestic walls have become the scene of a domestic imprisonment and the discovery of a new virtual life. Here, all the contradictions and social differences emerged between those who live in minimal housing – where they had to invent impromptu solutions to allow the entire family to continue to exercise a digital routine – and those who instead passed the lockdown in large suburban residences. The measures adopted have resulted in some effects, including

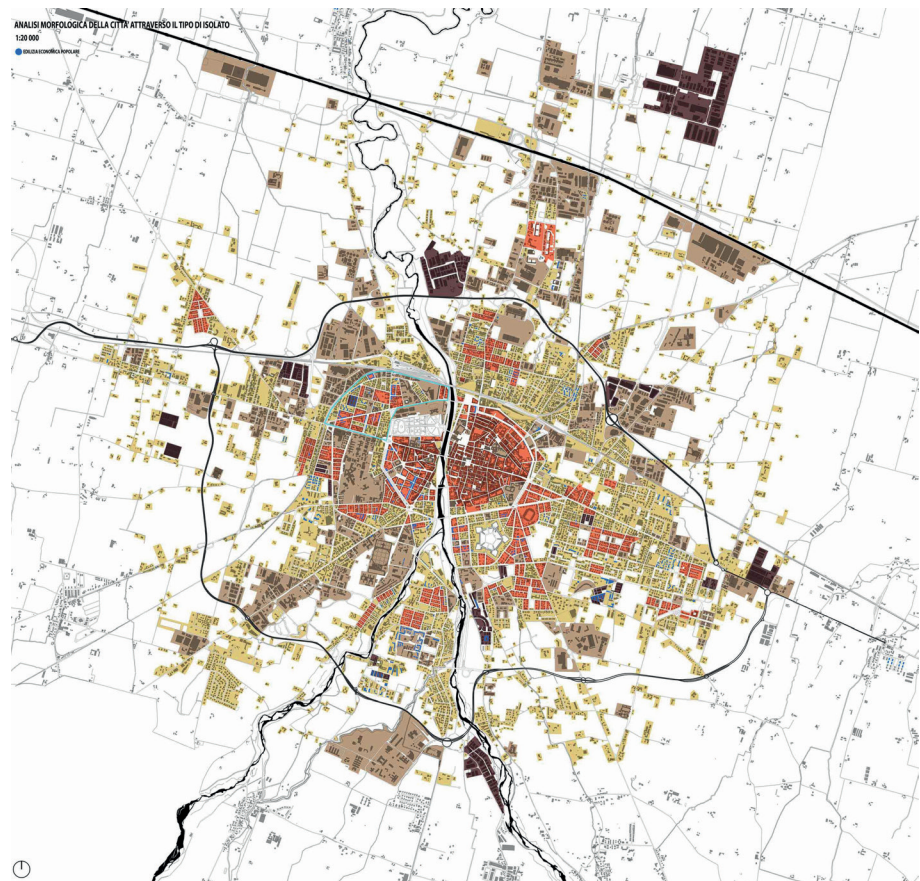


Fig. 1

Analysis of the city of Parma through the typologies of the block.

a city no longer available, a public space denied, a domestic enclosure as the only area of relationship, with the exception of supermarkets, besieged in the initial phase and then used by many as a diversion to isolation. In such a situation, it did not entirely surprise the desire to experience the urban dimension, expressed by many through flash mobs that allowed to *dwell* the thresholds – balconies, terraces, windows, courtyards – of houses and so claiming that human drive for community expression and social relationship.

The organization of the city – on a physical, functional, social level – was a factor that did not favor the containment of the diffusion.

It is precisely for this reason that it becomes crucial to restructure its fabric, often devoid of a systematic nature as well as urban characterization. This condition has made the virus more lethal, because «it is in the city – especially in the largest ones – that the contagion is easier and faster, the mortality higher, the containment strategies harder» (Settis 2020).

The urban issue, however, in the context of the debate between competences called to address the emergency, has taken a back seat. In fact, isolation has shown how the standard dwelling is not suitable for periods of domestic imprisonment, as it is designed to meet minimum legal standards, then adapted to various needs.

Many have focused on the *home of the future*, able to withstand, in terms of functional flexibility, stress such as that caused by the pandemic. However, interventions on the individual housing are often inappropriate, being that, for example, it may be included within condominium complexes that are difficult to transform. It is in cases such as these that it becomes important to think of a *large house*, or a *house of houses*, where proximity and the intermediate size between housing unit and city intervenes to complete the functional deficiencies of the domestic sphere.

Fig. 2

Analysis of the Pablo district of Parma through the typologies of the block.

**Fig. 3**

Reconfiguration of the fabric of the Pablo district through the experimental model of the macro-block. Design experimentation on a fabric sample (*macroblock 2*).



To speak of the need to put the city back at the center of future plans is reductive, given the neglect and inadequacy that affect some urban parts, especially the suburbs but today also many historic centers.

In 2018, the United Nations Department of Economy and Social Policies drafted the *World Urbanization Prospects*, where it is estimated that in Italy the population living in densely populated areas will increase from 55% today up to 81%.

Assuming, for the sake of argument, that there is a trend of demographic increase so optimistic and projected to thirty years from now, it becomes fundamental as urgent to reorganize the settlement conditions of the “built”, through new urban paradigms that make it possible to start regeneration processes in many parts of the city that can improve its organization, reconfiguration and management of ordinary and extraordinary situations, such as those caused by health or environmental emergencies.

At the same time, it is becoming increasingly clear that «a large part of our suburbs can be considered “self-built” in the sense of an “added construc-

tion”, completely foreign to the problematic dimension of dealing with a comprehensive design of the city» (Quintelli 2016). Therefore, in this scenario, «the compositional process will not make use of writing, on the blank page of the undifferentiated space, but of re-writing, of the note, of the footnote. The relationship with the concreteness of the built, and of those who live in it, forces the design interpretation to penetrate the structural factors of the place, praises its imaginative contingent gratuitousness and, in the need to deepen, derives ethical responsibility» (Quintelli 2016). Starting from these theoretical guidelines for research related to the urban form and the system of spaces already built, in November 2018 – as part of the Ph.D. Program of the Department of Engineering and Architecture of the University of Parma – a research on the urban (proto)type of the *macroblock* was launched. It is the spin-off of a line of design investigation on the theme of building in the built, started in 2013 entitled “*Designing the built. New models with integrated quality for the compact city*”, scientific tutor prof. Carlo Quintelli, as part of the research of the UAL group – Urban and Architectural Laboratory (Professors Carlo Gandolfi, Marco Maretto, Enrico Prandi).

These researches, taking as a sample the average cities of the Emilia-Romagna context, have found a substantial availability of space resource within the urbanized, to be reformed and redefined according to parameters of morphological structuring and functional reconfiguration based on the principle of urban centrality (Nolli, Montini, Strina 2013).

The ongoing research is now applied to the intermediate fabric instead of the core of centrality seen in Nolli, Montini and Strina: within that, it seeks the reasons to re-establish the image of a new model of settlement community able to respond to the needs of contemporary lifestyles, environmental sustainability and emergency situations caused by calamities, not least pandemic ones.

The analyses carried out led to the proposal of an urban model, according to the configuration of the *macroblock* that becomes a tool to start regeneration processes and, more precisely, to renew the space of living, through different phases and scales of architectural and urban design.

The methodological process starts from the typological invariant of the block – in this case that of the historical suburbs of the Emilian average city. In addition to being a constitutive unit, the block has assumed over time an alteration that has led it to be the symbol of a divided, fragmented city and one that confines the interior to claim individual properties. Starting from this twofold consideration, the *macroblock* mutates and adapts a historically consolidated typology: the association of several blocks establishes a new entity of higher rank and above all a sufficient size – of spatial, social and functional type – through which we can intervene to reconfigure and regenerate it.

Once established, the macroblock becomes a body on which to operate, on the level of form and in particular that of urban voids, as well as from the material point of view – with demolition, reconstruction, redevelopment of buildings from the point of view of energy and seismic danger, redevelopment of open spaces – and from a functional point of view – with the inclusion of support structures for health, education, sociality and especially for the more vulnerable classes. In addition, the macroblock exceeds the single-function of housing typical of the suburbs and establishes the conditions of a minimum urbanity that, in adherence to individual housing units, offers spaces for sociality, rethinks soft mobility, experiments with a

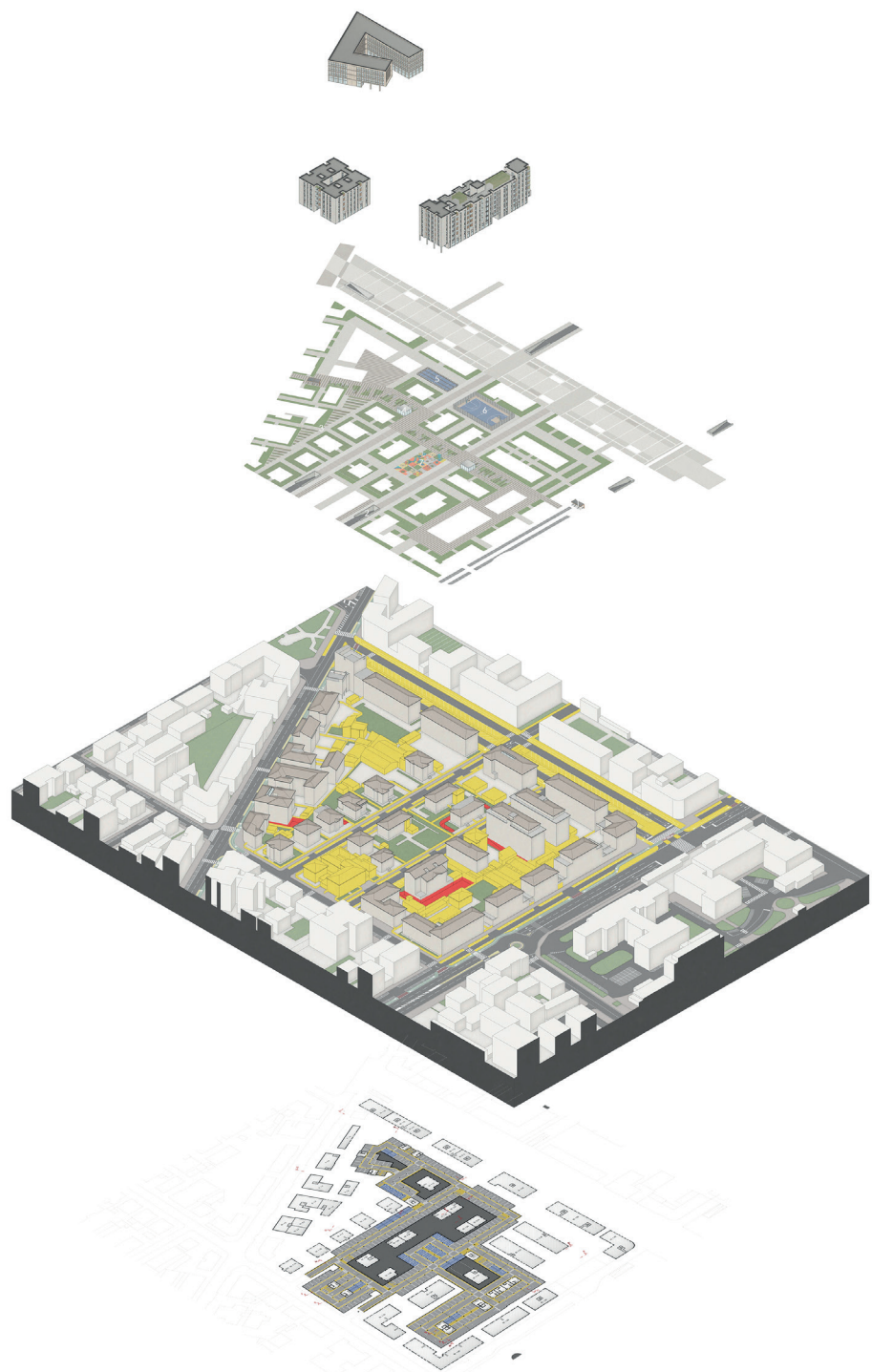


Fig. 4
Components of urban regeneration of *macroblock 2*.

new organization of proximity welfare. This way, an urban microstructure is obtained that establishes high living conditions – even in emergencies – and a balanced model between living, work, services and leisure.

In Barcelona, a similar operation has been put into practice for a few years, defined in the document “*La supermanzana, nueva célula urbana para la construcción de un nuevo modelo funcional y urbanístico de Barcelona*” proposed by Salvador Rueda (Agència de Ecologia Urbana de Barcelona). The idea of *supermanzana* starts from considerations linked to a radical change in trend compared to current planning processes with the aim of improving the urban ecosystem: increase public space and decrease the road surface, improving the air quality and environmental resilience of the city. Rueda stresses the need to unite *manzanas*, to recover space and achieve «a cohesion that welcomes a critical mass of population and people

capable of generating cities, building public space and promoting functional *mixité*» (Rueda 2019).

This way, urban units such as the *supermanzana* or the *macroblock* define the measure of the part with respect to the continuity of the entire urban fabric and of the housing community with respect to the citizenship. A *smallness* is circumscribed, a fine-grained urban entity (Ward 2016) that establishes a relationship between the architecture and the city, thus proposing a new economy of urban resources.

The urban spread of this autonomy – in the functional sense – is a condition for dealing with the pandemic health crisis like the one we are experiencing: the *macroblock*, which can by definition be isolated, allows the inhabitants to enjoy a variety of primary services, receive collective supplies, carry out health control activities and support to central hospitals – burdened by the activity of care and the risks of extreme contagiousness. Germany, which many believed to be a simulator of the actual data of the epidemic, has, in fact, reduced the effects thanks to the widespread presence in the urban fabric of structures that have supported hospitals in the screening phases.

A new urban identity described this way is also useful for a less stringent phase of isolation, as it can provide spaces for leisure and coworking within 100-150 meters from home, so as to reduce the social and economic effects.

Someone has feared further and future possibilities of being affected by similar situations. Among the long-term prevention solutions there is surely that of involving the deepest meanings of the city and working on its body to bring it to an adequate stage of resilience.

Only through a new urban paradigm will we be able to tell the younger generations that everything will be fine.

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Giuseppe Verterame, 1990, architect and PhD student in Architecture and City at the University of Parma. He attended the FAUP in Porto as part of the Erasmus program and worked in the same city from 2013 to 2015. He graduated discussing the project of an archive-museum for the urban regeneration of the Fontainhas district of Porto. Since 2015 he has participated as a tutor in various international workshops and collaborates in the teaching and research of Architecture courses at the University of Parma. Currently he deals with research topics on collective housing at the architectural and urban scale in the medium-sized city.